Work Order	r ID 104936		*1049	936*		F	Page 1
Revision ID: Item Name: S	O3017-041  Scat Back 7/23/13 Start Qty: 1. 7/23/13 Req'd Qty: 1.	•	Accept	*N900040  Cust Item ID:  Customer:		Setup Start *NS1 Stop *NS2	*
	Process Plan: _M C S		25Tooling: SPC (Y/N):	Date:		Run Start *NR1 Stop *NR2	
Sequence ID/ Work Center ID	Operation Description		Set Up/ Run Hours	Tool ID Tool#	Plan Accept Code Qty		p. +-
Draw Nbr	Revision Nbr			Ì			
D3017	Rev B	1		}		·	
*100 *100* Large Fab Large Fab	Large Fab  Mem 1-Cul 2-Ber 3-Dri 4-Del 5-Ass	t D3017-1, D3017-3 and D301 nd D3017-1 and D3017-3 tube ill holes in D3017-5 Using DT8	0.00 7-5 tubes as per Dwg D3017 as per dwg D3017 (DT8598) 8622 83017 using Welding Jig DT85	98		Q 13-8-1	
*110 *110* QC Quality Control	QC9- Inspect visu	ual per QS1004- Fusion Welds	0.00	,	. 0	13-08-01 PD	

NCO.		/ 81-				WORK ORDER NON-C	ONEOD	MANCE / LID	DATE	DQA:	Date:	
NCR:	res	/ No				WORK ORDER NON-C	ONFOR	VIAIVEL / OF	DATE	QA Closed:	Date:	
Work Orde	er: _					DISPOSITION		Chief Austra	AGAINST DE	PARTMENT	/PROCESS  Water Jet	Engineering
Part f	_					Rework Scrap Use-as-is Work Order Update		Skid-tube  Machining  noforming  Large Fab	Crosstube Small Fab Finishing Composite	4	d. Eng. Coor. re/Packaging Supplier	Quality Other
Root					Descri	ption of work order update	Initial	Ac	tion	Sign &		
Cause		Date	Step	Qty	(	or Non-conformance	Chief Eng	Desc	ription	Date	Verification	QC Inspector
Doc/Data												
Equip/Tooling												
Operator	Ш											
Material											i	
Setup												
Other										1		
Process												
Supplier				į								

din	g Gear	General	·	<u>_</u>	 _	_
	Bending	Bend		Grain	Ovalized	Pressure/Forced
	Centre Not Concentric to O/S	BOM/Route		Hardware	Over/Under tolerance	Temperature/Cure
ſ	Cracks	Broken/Damaged	Γ	Inspection Incomplete	Part incorrect	Weld
	Crushed/Crimped	Burrs		Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled
	Cuffs	Contamination		Maintenance	Part Moved	_
ſ	Heat Treat	Countersink		Mislabeled	Positioned Wrong	_
	Inspection Strip in Tube	Cut Too Short		Misread	Power Loss/Surge	Other
	Ripples in Bend	Drill Holes		Offset	 	
	Torque Waves in Extrusion	Drawing		Out of Calibration		
ſ	Turning Sequence	Finish		Out of Sequence		
ſ	Wave/Twist in Tube	Folio		Outside Dimensions		

**FAULT CATEGORY** 

Training Unapproved

Work Order ID 1 July-23-13 12:57:11 PM	04936		*104	936* Page 2
Item ID: D3017-041 Revision ID: Item Name: Seat Back Start Date: 7/23/13 Required Date: 7/23/13 Reference:	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*	Accept	*N900040100* Setup Start *NS1* Stop *NS2*  Cust Item ID: Customer:
Approvals: Process P	Plan:	Date:	Tooling: SPC (Y/N):	Date:  Date:  NR1*  Stop  *NR2*
Sequence ID/ Work Center ID  120  *170* QC Quality Control	Operation Description QC5- Inspect part comple Memo	eleness to step on W/O	Set Up/ Run Hours 0.00	Tool ID Tool # Plan Accept Reject Reject Insp.  Code Qty Qty Number Stamp
Powder Coating  MARCO  AND  POWDER  PO	Grey Sandtex(Ref.4.3.5.6  Memo START TIM OVEN TEM FINISH TIM  QC3- Inspect Part Finish  Memo	16: 10 3 PERATURE: 3	0.00 0.00 0.00 0.00	1x 4 M 13/08/02

												DQA:	Da	ite:	
NCR: Y	/es	/ No				<b>WORK ORDER NON-</b>	CO	NFORM	MANCE / UP	DATE					
											Q	A Closed:	Da	te:	
Work Orde	. r.					DISPOSITION				AGAINST D	EP#	ARTMENT/	PROCESS		
WOIK OIGE	-				<del></del>	Rework	7		Skid-tube	Crosstube	7		Water Jet		Engineering
Part N	۷a.					Scrap	1		Machining	Small Fab	1	Proc	d. Eng. Coor.	∺	Quality
	٠٠.					Use-as-is	1		noforming	Finishing	1		e/Packaging	${f H}$	Other
NCR N	No.					Work Order Update	1	1	Large Fab	Composite	7		Supplier	_	
					_										
Root			{		Desci	ription of work order update		Initial		tion		Sign &		ļ	
Cause		Date	Step	Qty	ļ	or Non-conformance	Cl	nief Eng	Desc	ription	_	Date	Verificatio	<u>n</u>	QC inspector
Doc/Data															
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Supplier															
Training					,										
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				·			AUI	LT CATE	GORY						
Landi	ng G	Gear				General		_		-	_				•
		Bending				Bend		Grain		L	၂၀	valizeđ		Ш	Pressure/Forced
		Centre No	ot Concei	ntric to	O/S	BOM/Route	L	Hardwa	re		_ 0	ver/Under	tolerance	Ш	Temperature/Cure
		Cracks				Broken/Damaged	L	Inspecti	on Incomplete		P	art Incorrec	t	Ш	Weld
		Crushed/	Crimped			Burrs		Instruct	ions Incomplete/	Unclear	P	art Lost/Mis	ssing		Wrong Stock Pulled
		Cuffs				Contamination		Mainte	nance		P	art Moved			

Mislabeled

Out of Calibration

Out of Sequence

Outside Dimensions

Misread

Offset

Positioned Wrong Power Loss/Surge

Other

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Heat Treat

Inspection Strip in Tube

Torque Waves in Extrusion

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

<b>Work Ord</b> <i>July-23-13 12:</i>		4936		*1049	Page 3			
Item ID: Revision ID: Item Name: Start Date: Required Date Reference:	D3017-041  Seat Back 7/23/13 : 7/23/13	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*	Accept	*N90004( Cust Item ID: Customer:	า1กก*	Setup Start Stop	*NS1* *NS2*
Approvals:	Process Pla	n:	Date:	Tooling: SPC (Y/N):	Date:		Run Start Stop	*NR1* *NR2*
Sequence ID/ Work Center I 150 *15()* Packaging Packaging	ID	Operation Description Identify as per dwg & Stoe	k Location: <u>6 · A</u>	Set Up/ Run Hours 0.00	Tool ID Tool	# Plan Accept Code Qty		Reject Insp. Number Stamp
160 *160* QC Quality Control		QC21- Final Inspection - V  Memo	Vork Order Release	0.00		М	J-13-	08-07 MCJ 1308+0

											DQA:	Date	e:
NCR:	Yes	/ No				WORK ORDER NON-	100	NFORN	AANCE / UPDAT		QA Closed:	Date	•
				<u></u>		DISPOSITION				AGAINST DEI	·		
Work Orde	er:						_ :	]				, i Nocess	_
	No.					Rework Scrap Use-as-is Work Order Update		Therm	Machining S noforming	rosstube imall Fab Finishing omposite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Root					Descri	ption of work order update	T	Initial	Action		Sign &		
Cause		Date	Step	Qty		or Non-conformance	Ch	nief Eng	Descriptio	on	Date	Verification	QC Inspector
Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved									· ·				
							AUI	LT CATE	GORY				-
Landi		Bending Centre N Cracks Crushed/ Cuffs Heat Trea Inspectio	Crimped at n Strip in		o/s	General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short		Instruct Mainte Mislabe Misread	on Incomplete ions Incomplete/Uncle nance led	ear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned V	ct issing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
	1	Ripples in	n Bend		Ì	Drill Holes		Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

											DQA:	Date:	
NCR: Y	Yes	/ No				WORK ORDER NON-	100	NFOR	MANCE / UP	DATE	QA Closed:	Date:	
Work Orde		· · · · · · · · · · · · · · · · · · ·				DISPOSITION				AGAINST DE			
Work Orde	er. <u>-</u>					Rework	וו		Skid-tube	Crosstube	]	Water Jet	Engineering
Part N	No.					Scrap	]	1	Machining	Small Fab	4	d. Eng. Coor.	Quality
NCR N	No.					Use-as-is Work Order Update		ihern	noforming Large Fab	Finishing Composite	Rec/Sto	re/Packaging Supplier	Other
Root					Descri	ption of work order update	Π	Initial	Act	tion	Sign &		
Cause		Date	Step	Qty	,	or Non-conformance	Ch	nief Eng	Desci	ription	Date	Verification	QC Inspector
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Equip/Tooling					1								
Operator													
Material	П												
Setuo													
Other	П												
Process													
Supplier	П						1						
Training	П	ı	1										
Unapproved	П								l				
			-			F	AUL	T CATE	GORY				
Landi	ng G	ear	_	-		General		_			_		
		Bending				Bend		Grain			Ovalized		Pressure/Forced
ŀ		Centre N	ot Conce	ntric to	o/s	BOM/Route		Hardwa	ire	[	Over/Under	tolerance	Temperature/Cure

Inspection Incomplete

Maintenance

Out of Calibration

Out of Sequence

Mislabeled

Misread

Offset

Instructions Incomplete/Unclear

Weld

Other

Wrong Stock Pulled

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Wave/Twist in Tube Folio Outside Dimensions

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Cracks

Cuffs

Heat Treat

Ripples in Bend

Turning Sequence

Crushed/Crimped

Inspection Strip in Tube

Torque Waves in Extrusion

Broken/Damaged

Contamination

Countersink

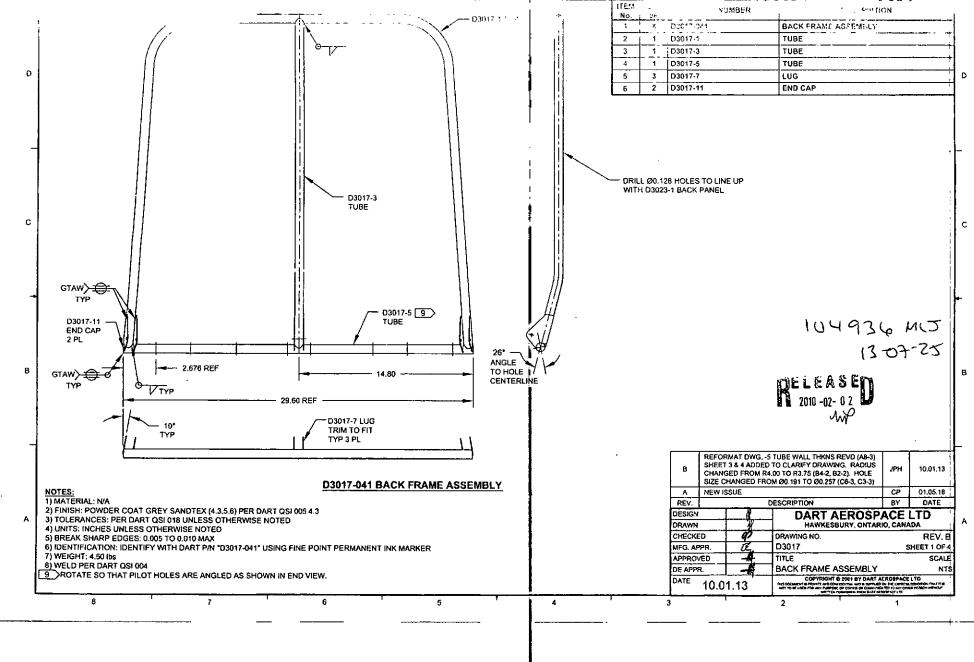
Cut Too Short

Drill Holes

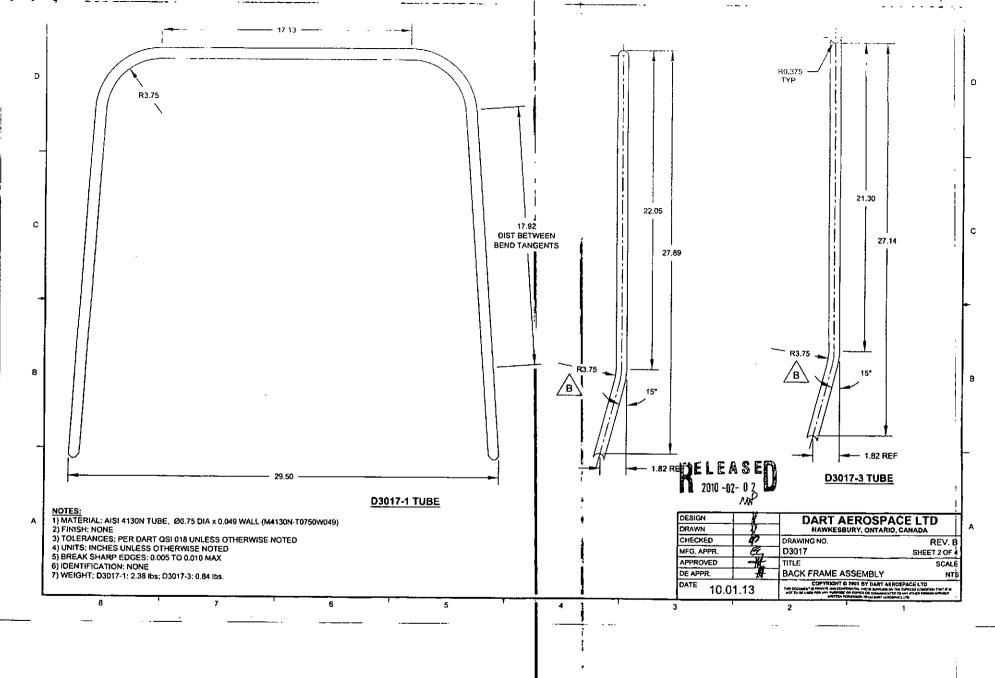
Drawing

Finish

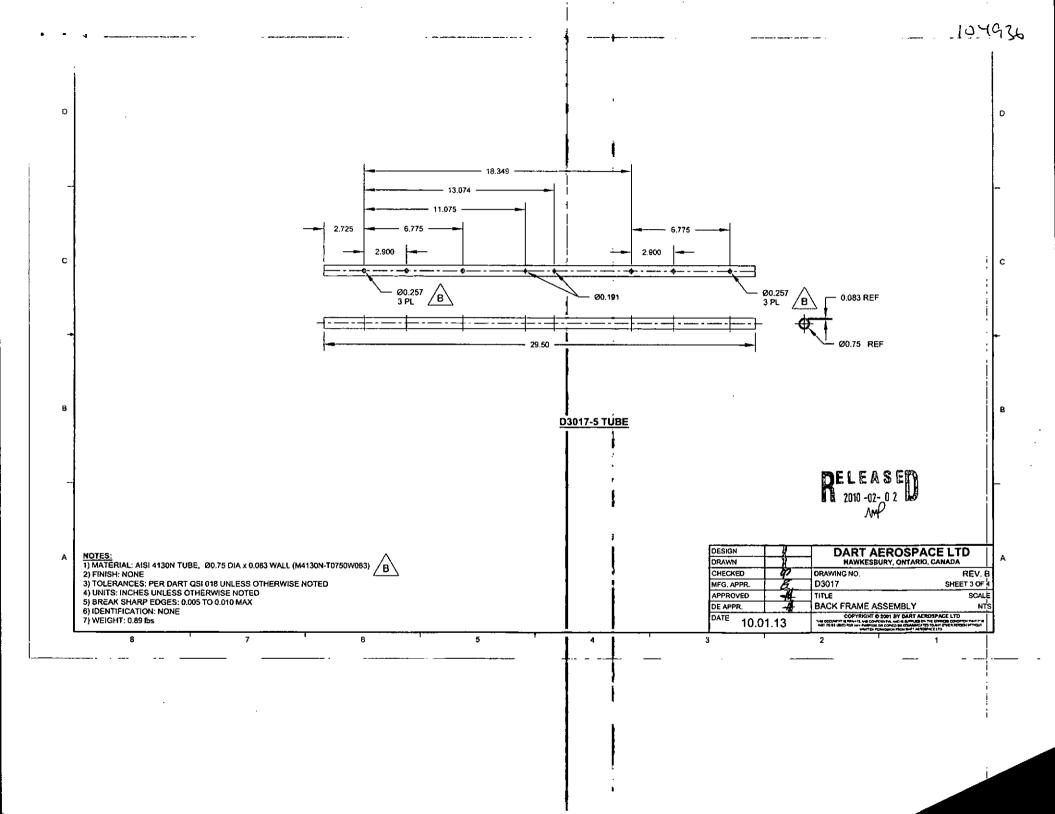
Burrs



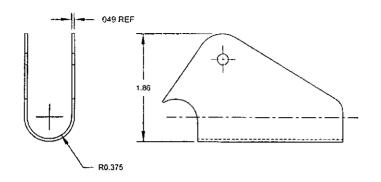
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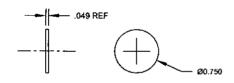
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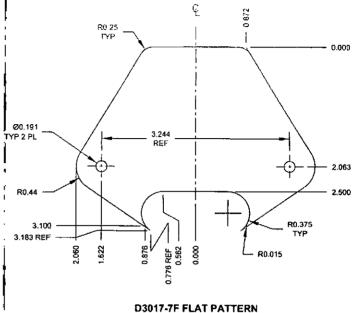


D3017-7 LUG BENDING DETAIL MAKE FROM D3017-7F



**D3017-11 END CAP** 

5



PART IS SYMMETRIC ABOUT CENTERLINE



DESIGN	Į)	DART AEROSPA	CELTD
DRAWN	y	HAWKESBURY, ONTARIO,	
CHECKED	P	DRAWING NO.	REV. B
MFG. APPR.	19.	D3017	SHEET 4 OF 4
APPROVED	-#	пи	SCALE
DE APPR.		BACK FRAME ASSEMBLY	NTS
DATE 10.0	1.13	COPYRIGHT © 2001 BY DART AERO THE BOOLEMAN REPORT OF THE BOOLEMAN OF THE BOOLE	CUPPESCO-OTO: Not Fe

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С

В

NOTES: 1) MATERIAL: AISI 4130N SHEET, 18 GAUGE (M4130N-S049)

2) FINISH: NONE

3) TOLERANCES: PER DART OSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED

5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX 6) IDENTIFICATION: NONE

7) WEIGHT: -7: 0.12 lbs; -11: 0.01 lbs.

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